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C L A I M S

1. Use of semi-allogeneic antigen-presenting cells into which proteins and/or peptides or RNA or DNA or cDNA encoding said proteins and/or peptides which are overexpressed in tumor cells or are derived from autologous tumor cells have been introduced for the treatment of tumor diseases.

2. The use according to claim 1 characterized in that said tumor cells comprise: cells of carcinomas, preferably ovarian, mammary and renal cell carcinomas, tumor cells of the hematopoietic system, preferably cells of leukemias and lymphomas, cells of mesenchymal tumors, preferably sarcomas, cells of epithelial tumors, cells of ectodermal tumors, preferably melanomas, and cells of embryonic tumors from undifferentiated tissue, preferably blastomas and teratomas.

3. The use according to claim 2 characterized in that said semi-allogeneic antigen-presenting cells are used for the treatment of tumors comprising: carcinomas, preferably ovarian, mammary and renal cell carcinomas, tumors of the hematopoietic system, preferably leukemias and lymphomas, mesenchymal tumors, preferably sarcomas, epithelial tumors, ectodermal tumors, preferably melanomas, and embryonic tumors from undifferentiated tissue, preferably blastomas and teratomas.

4. The use according to one or more of the preceding claims characterized in that semi-allogeneic antigen-presenting

cells of two different semi-allogeneic individuals are used.

5. The use according to claim 4 characterized in that RNA is employed which has been reverse transcribed from autologous tumor cells into cDNA, the cDNA has been amplified by means of PCR and subsequently the cDNA has been transcribed in RNA.

6. The use according to one or more of the preceding claims characterized in that said semi-allogeneic antigen-presenting cells are applied by the intravenous, subcutaneous or intramuscular route.

7. The use of said semi-allogeneic antigen-presenting cells into which proteins and/or peptides or RNA or DNA or cDNA, respectively, encoding said proteins and/or peptides which are overexpressed in tumor cells or are derived from autologous tumor cells have been introduced in recombinant form.

8. The use according to one or more of the preceding claims characterized in that RNA or DNA or cDNA is introduced into the semi-allogeneic antigen-presenting cells which encodes tumor-defined antigens, wherein the tumor-defined antigens are antigens overexpressed in the tumor cells and are preferably selected from oncogenes, preferably HER2/neu, proteins providing a growth advantage to the tumor and/or ensuring its survival, preferably PSMA, cell cycle regulatory proteins, transcription factors, preferably WT-1, mucins, preferably MUC-1, proteins involved in the regulation of cell division, preferably telomerase.

9. The use according to one or more of the preceding claims characterized in that said antigen-presenting cells are dendritic cells or macrophages.

10. The use of semi-allogeneic antigen-presenting cells into which proteins and/or peptides or RNA or DNA or cDNA encoding said proteins and/or peptides from several different tumor cell lines have been introduced for the treatment of tumor diseases.

11. The use according to claim 10 wherein pooled cRNA from two or three different tumor cell lines is introduced.

12. A method for the preparation of semi-allogeneic antigen-presenting cells for the treatment of tumor diseases wherein proteins and/or peptides or RNA or DNA or cDNA encoding said proteins and/or peptides which are overexpressed in tumor cells or are derived from autologous tumor cells are introduced into the semi-allogeneic antigen-presenting cells.

13. A method for the preparation of semi-allogeneic antigen-presenting cells for the treatment of tumor diseases wherein proteins and/or peptides or RNA or DNA or cDNA, respectively, encoding said proteins and/or peptides from several different tumor cell lines are introduced into the semi-allogeneic antigen-presenting cells.

14. A method according to claim 12 or 13 characterized in that first RNA from tumor cells is reverse transcribed into cDNA, the cDNA is amplified by means of PCR and subsequently the cDNA is transcribed into RNA.

15. A method according to any of the claims 12-14 wherein antigen-presenting cells of two different semi-allogeneic individuals are used.

16. Semi-allogeneic antigen-presenting cells which may be obtained by a method according to claims 12-15.

17. Semi-allogeneic antigen-presenting cells containing proteins and/or peptides or RNA or DNA or cDNA, respectively, encoding said proteins and/or peptides which are overexpressed in tumor cells or are derived from autologous tumor cells.

18. Semi-allogeneic antigen-presenting cells according to claim 17 characterized in that said proteins and/or peptides or RNA or DNA or cDNA encoding said proteins and/or peptides which are overexpressed in tumor cells or are derived from autologous tumor cells are selected from carcinomas, preferably ovarian, mammary and renal cell carcinomas, tumors of the hematopoietic system, preferably cells of leukemias and lymphomas, cells of mesenchymal tumors, preferably sarcomas, cells of epithelial tumors, cells of ectodermal tumors, preferably melanomas, and cells of embryonic tumors from undifferentiated tissue, preferably blastomas and teratomas.

19. Semi-allogeneic antigen-presenting cells containing proteins and/or peptides or RNA or DNA or cDNA encoding said proteins and/or peptides from several different tumor cell lines.

20. Semi-allogeneic antigen-presenting cells according to claims 16-19 characterized in that said antigen-presenting cells are dendritic cells or macrophages.

21. A pharmaceutical composition containing semi-allogeneic antigen-presenting cells according to any of the claims 16-20.

22. A composition according to claim 21 characterized in that it is a vaccine.